Universitat Autònoma de Barcelona

2023/2024

Techniques of Regional Representation and Design

Code: 104258
ECTS Credits: 6

Degree	Type	Year	Semester
2503710 Geography, Environmental Management and Spatial Planning	OB	3	2

Contact

Name: Miguel Angel Narvaez Gomez

Email: miguelangel.narvaez@uab.cat

Teaching groups languages

You can check it through this link. To consult the language you will need to enter the CODE of the subject.
Please note that this information is provisional until 30 November 2023.

Prerequisites

Students must be self-sufficient in using Geographic Information Systems and Excel for creating user-level mapp

Objectives and Contextualisation

The purpose of the subject is to acquire theoretical and methodological knowledge about graphic design and representation of geographic information. This subject serves as an introduction to the field of data visualization using both open-source and proprietary software. The aim is not to extensively cover the use of specific programs, but rather to understand the fundamental aspects related to graphic design of geographic information. Upon completion of this subject, students will be able to apply the acquired knowledge not only to practical cases presented in other subjects but also to projects within the professional sphere.

Competences

- Apply methods and techniques of quantitative, qualitative and field work analysis in the interpretation of territorial and environmental processes.
- Combine distinct techniques and methods of representation and spatial analysis in elaborating materials for transmitting results.
- Explain and represent territorial processes using statistical techniques, and graphic, cartographic and geographical information representations.
- Generate innovative and competitive proposals in professional activity.
- Students must have and understand knowledge of an area of study built on the basis of general secondary education, and while it relies on some advanced textbooks it also includes some aspects coming from the forefront of its field of study.

Learning Outcomes

1. Combine distinct techniques and methods of representation and spatial analysis in elaborating materials for transmitting results.
2. Generate innovative and competitive proposals in professional activity.
3. Interpret the statistical result of data analysis.
4. Students must have and understand knowledge of an area of study built on the basis of general secondary education, and while it relies on some advanced textbooks it also includes some aspects coming from the forefront of its field of study.
5. Understand techniques for cartographic and infographic representations of data and regional processes.
6. Understand the main sources of information and scientific documentation related to regional and environmental processes.

Content

1. Basic concepts of graphic design.
2. Concepts of information design.
3. Concepts of infographic design.

Methodology

The subject follows the teaching methodology known as "flipped classroom," in which instead of following the traditional model of acquiring knowledge through lectures and then completing homework assignments at home, the flipped classroom proposes to reverse this process. The teacher provides students with study materials so that they can acquire fundamental knowledge on their own. During class time, the teacher focuses on practical activities, group discussions, and problem-solving, allowing students to clarify doubts and receive direct guidance from the teacher. This approach encourages active student participation, promotes critical thinking, and the practical application of acquired knowledge.

Autonomers

Reading and study of materials and bibliography provided by the professor.

Supervised

Revision of manuals and tutorials of the software to be used for performing exercises.

Completing the practices started in class and applying the guidance provided by the teacher.

Directed

Performing practical exercises and classroom projects under the supervision of the teacher.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Activities

	Learning

Title	Hours	ECTS	Outcomes
Type: Directed			
Project work and exercises inside the classroom, solving problems and doubts, receiving direct guidance from the teacher.	47	1.88	6, 5, 2
Type: Supervised			
Autonomous work on projects and exercises outside the classroom.	65	2.6	1, 5, 3
Type: Autonomous			
Reading and studying theoretical materials.	35	1.4	1, 5, 2, 3, 4

Assessment

The subject will be evaluated according to the following assessment evidence:

- Practical exercises that will be submitted throughout the subject, accounting for 40% of the final grade. The practices must be submitted within the deadline set by the faculty. Late submissions will incur a penalty to be considered.
- Completion of a project, which will constitute 30% of the final grade.
- Examinations, which will make up 30% of the final grade.

The evaluation of the subject will be continuous. To pass the subject, the following requirements must be met:

a) A minimum average of 5 points (out of 10) in the two partial exams.

b) A minimum of 5 points (out of 10) in the group work.

c) A minimum of 5 points (out of 10) in the average of in-class exercises.

Students who do not submit the final project or do not attend the exam will be evaluated as "Not Evaluable."

In the event that a student engages in any irregularities that may significantly affect the grading of an assessment event, that event will be graded as 0, regardless of any disciplinary process that may be initiated. If multiple irregularities occur in the assessment events of the same subject, the final grade for that subject will be 0.

Assessment events in which irregularities have occurred are not recoverable.

At the time of each assessment activity, the teacher will inform the students (through Moodle) of the procedure and date for reviewing the grades.

This subject does not incorporate single assessment.

RECOVERY

The exam and practical exercises may be recoverable through alternative assignments or tests proposed by the teacher (in such cases, they must be completed alongside the subject's planning).

The final project is not recoverable.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Exam	30%	3	0.12	6, 5, 2, 3, 4
Final project	30%	0	0	1, 6, 5, 2, 3, 4
Practical exercises	40%	0	0	1, 6, 5, 2, 3, 4

Bibliography

Cairo, A. (2011). *El Arte funcional: infografía y visualización de información*. Alamut.

JOHN KANE (2012). MANUAL DE TIPOGRAFIA (2ª ED.). EDITORIAL GG. ISBN: 9788425225123

Josef Müller-Brockmann (2012). Sistemas de retículas. Un manual para diseñadores gráficos. Colección GGmoda. ISBN: 9788425225147

HARRIS AMBROSE (2015). BASES DEL DISEÑO, COLOR. EDITORIAL PARRAMON. ISBN: 9788434228559

Software

Along the course, several softwares will be used:

- Geographical Information Systems: ArcGIS, Qgis.
- Office softwares: Powerpoint, Excel.
- Design softwares: https://inkscape.org/.
- Other online softwares: https://www.canva.com/, https://penpot.app/